

# hls62

## Hannah Stahl's Individual Contribution Page

### Spring 2013 Contributions

This is my first semester on AguaClara, and I am a member of the depth vs. surface sand filtration team. My team's overall goal is to research, analyze, and compare the differing features of a conventional rapid sand filter and AguaClara's stacked rapid sand filter. The main difference between the two systems is the location at which the water is injected--at the surface vs. into the sand bed, respectively. We intend to explore the pros and cons of these two different methods of water injection, analyzing how they affect the head loss and other important components of the system. Much of our work will be in literature research, but we also intend to work with the filter currently set up in the lab in order to carry out experiments and test our theories.

Over the course of this semester, I have contributed to the accomplishments of AguaClara's depth vs. surface sand filtration team (now renamed surface vs. subsurface inlet systems for sand filtration). Some things I have done for the good of the team are: arranging a meeting with a professor in the field of water treatment to gain new knowledge; taking notes during meetings with Monroe to record the information and advice he provided us; helping generate insights and ideas for experiments; helping carry out the experiments -- often coming in outside of designated class-time hours in order to do so. Overall, I feel I have helped my team achieve some admirable goals -- learning about filtration; learning how to use Process Controller, Lyx, and MathCad; creating a usable testing apparatus; running over 15 experiments; and collecting, organizing, and analyzing data.